## **CLAIMS**

- A guide insertion device (8; 108) suitable for the 1. insertion of a guide into a check valve made of a 5 surgical material comprising a body (10; delimiting a duct (12; 112) for guiding the guide, the duct being open at its two ends, the body having, from a first end of the duct, a slim cannula (14; 114) extending along the axis of the 10 duct and suitable for being engaged through the check valve, characterized in that the body (10; 110) has a slot (24; 124) extending longitudinally along the length of the duct (12; 112) from one end to the other of this duct and opening into the 15 duct (12; 112) along its whole length, in that the diameter of the duct (12; 112) along the length of the body (10; 110) increases progressively from the first end to the second end, and in that the outer surface of the (14;cannula 20 generally frustoconical and flares progressively from said first end of the duct.
- The guide insertion device as claimed in claim 1, characterized in that the body (10; 110) is formed
  of a single monobloc piece.
- 3. The guide insertion device as claimed in claim 1 or 2, characterized in that the cannula (14; 114) extends over a length 50% greater than the total length of the duct (12; 112).
- The guide insertion device as claimed in any one of the preceding claims, characterized in that the body (10; 110) comprises around the second end of the duct (12; 112) a divergent frustoconical wall (20; 120) axially extending said cannula (14; 114).

- 5. The guide insertion device as claimed in claim 4, characterized in that said frustoconical wall (20; 120) internally delimits a centering cone (22; 122) whose maximal diameter lies between 1.5 and five times its minimal diameter.
- 6. The guide insertion device as claimed in claim 4 or 5, characterized in that said frustoconical wall (20; 120) internally delimits a centering cone (22; 122) whose maximal diameter lies between 3 and 8 times the minimal diameter of the duct (12; 112).
- 15 7. The guide insertion device as claimed in any one of the preceding claims, characterized in that the minimal diameter of the duct (112) lies between 1.5 mm and 2.5 mm.
- 20 8. The guide insertion device as claimed in any one of the preceding claims, characterized in that the width of the slot (124) lies between 0.08 and 0.15 mm.
- 25 9. The guide insertion device as claimed in any one of the preceding claims, characterized in that the ratio of the minimal diameter of the duct (112) to the width of the slot (124) lies between 12 and 22.

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10. The guide insertion device as claimed in any one of claims 1 to 6, characterized in that the minimal diameter of the duct (12) lies between 0.30 mm and 1 mm.

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11. The guide insertion device as claimed in any one of claims 1 to 6 and 10, characterized in that the width of the slot (24) lies between 0.15 mm and 0.50 mm.

- 12. The guide insertion device as claimed in any one of claims 1 to 6 and 11, characterized in that the ratio of the minimal diameter of the duct (12) to the width of the slot (24) lies between 5 and 9.
- 13. The guide insertion device as claimed in any one of the preceding claims, characterized in that the length of the duct (12; 112) lies between 7 cm and 13 cm.

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14. The guide insertion device as claimed in any one of the preceding claims, characterized in that the body (10; 110) has two internal bevels (28) made along the whole length of the slot (24; 124) between each of the opposite side walls of the slot (24; 124) and the surface of the duct (12; 112).